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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/717,250

11/19/2003

Martin Evans

CAT/008

7738

26291 7590 04/20/2007
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EXAMINER

BHAT, NINA NMN

ART UNIT

PAPER NUMBER

1764

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/20/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/717,250

Applicant(s)

EVANS, MARTIN

Examiner

N. Bhat

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-10, 15, 17, 18, 21 and 23-25 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 11-14, 16, 19, 20, 22 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 August 2006 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's arguments have been fully and carefully considered. The examiner acknowledges that no amendments to the originally presented claims have been made only new claims 27-33 have been added.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3 and 7 remain rejected under 35 U.S.C. 102(b) as being anticipated by Haugen 2,616,591 for reasons fully delineated in the office action of 10-30 2006 and the following: Haugen teaches a vessel which is suitable for storing fluid cracking catalyst which is the hopper vessel as shown in Figure 5, the hopper is partitioned into at least two compartments and includes a plenum, and includes a plurality of dispensing mechanisms as described in the previous office action. Applicant has argued that Haugen fails to disclose a plurality of dispense mechanisms coupled to a respective compartment of the vessel. The examiner respectfully disagrees with applicant's interpretation of the hopper vessel and plurality of dispensing mechanisms (19, 26, 27), which read directly on applicant's apparatus.

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4. Claims 1, 2, 7 and 9 remain rejected under 35 U.S.C. 102(b) as being anticipated by Pozo USP 4,809,883)

Pozo teaches applicant's dispensing assembly which includes a vessel (1) comprising a plurality of compartments (24, 28) a plenum (15) associated with the inner compartments (24) and plenum (13) operatively connected with outer compartments (28) and a plurality of dispensing mechanisms (42) associated with each compartment. The reference fully anticipates applicant's claims as drafted. Applicant has argued that the dispensing assembly having a bin disposed over a rotating middle section is not a vessel as the bin and compartments are not a vessel. The examiner respectfully disagrees with applicant's characterization of the Pozo reference, the sand dispensing assembly includes a vessel which is suitable for storing fluid cracking catalyst, the dispenser of Pozo is capable of or suitable for dispensing sand which would therefore be suitable for dispensing the catalyst or any other "sand like" particulate matter. The construction and arrangement the compartments 24 and 28 are of similar volumes and that there is included a plurality of fill ports which satisfy the conditions of claim 9 as claimed and therefore, it is maintained that the vessel of Pozo does indeed provide a vessel suitable for storing a cracking catalyst and a separator disposed in the vessel and defining at least two compartments within the vessel.

5. Claims 10, 15, 17, 18, 21 and 23-25 remain rejected under 35 U.S.C. 102(e) as being anticipated by Evans USPGPUB 2004/0166032 for reasons of record delineated in the office action of October 30, 2006 and the following.

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Evans teaches an apparatus comprising a FCC unit (424) and catalyst injection system (502) having a plurality of catalyst storage chambers (440 and 510). Applicant has argued that that Evans discloses a catalyst dispensing assembly having two separate low-pressure vessels coupled to a high pressure. None of the vessels having chambers therein for storing catalyst as recited I claim 10 or 21. Again the examiner respectfully disagrees with applicant's interpretation of the reference. Evans specifically teaches elements of an FCC apparatus or system, which includes a fluid cracking unit and a catalyst injection vessel coupled to the fluid cracking unit having a plurality of catalyst storage chambers. From Figure 5, it can be seen two vessels (440 and 510) which is connected to a third vessel (420), which is, then fluidly connected to an FCC unit this meets applicant's claims as presently drafted. The pressure vessels are capable of storing the catalyst the fact that these are pressure vessels does not negate the fact that the vessels are "suitable or capable" of storing catalyst. It appears from reading applicant's arguments that applicant is reading the claims much more narrowly than the examiner and the examiner has to give applicant the broadest most reasonable interpretation of the claims and the instant examiner as well as the previous examiner are in agreement that as claimed the recited claims are anticipated by Evans.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 6 and 8 remains rejected as being unpatentable over Haugen for reasons of record delineated in the office action of October 30, 2006 and the following. Haugen teaches a vessel, which is capable of storing cracking catalyst, the vessel includes separator, and plenum and a plurality of dispense mechanisms as claimed. The Haugen does not specifically teach that the two compartments within the hopper has different volumes or adjustable volumes as claimed by applicant. To provide a moveable separator within a hopper so that two different volumes can be dispensed would have been obvious to one having ordinary skill in the art. The modification would have been obvious to one having ordinary skill in the art, as it has been long held that varying the size and shape of a vessel or compartment would have been obvious to one having ordinary skill in the art at the time the invention was made. Note the case law of *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) wherein the court held that the configuration of the claimed disposable plastic nursing container was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant.).

9. Claims 27-33 are rejected under 35 U.S.C. 103(a) as being obvious over Haugen in combination with Evans US PG PUB 2004/0166032.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome

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by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

As stated supra, Haugen teaches the invention substantially as claimed, i.e., Haugen teaches a vessel capable of storing catalyst, a separator disposed in the vessel having at least two compartments within the vessel, a plenum defined within the vessel and a plurality of dispensing mechanisms coupled to the respective compartments.

However, Haugen does not teach that the vessel is closed, that the vessels is a pressure vessel and that and that the compartments of the catalyst injection vessel are pressurizable and that the dispensing system is fluidly connected to the first and second compartments.

These deficiencies have been fully taught by Evans. Evans specifically teaches a method and apparatus for metering catalyst in fluid catalytic cracking system, which includes a catalyst injecting system. The catalyst is metered and injected into the FCC

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system by using a low-pressure storage vessel coupled to a pressure vessel that defines a high-pressure side of the apparatus, and there are control means, which determine the amount of catalyst to be transferred. Specifically in Figure 5, which is described in Column 6, lines 32-67, teaches that FCC system (5)) comprises an injection system (502) coupled to FCC unit 424. The injection system (502) is adapted to provide multiple catalysts to the FCC unit. The injection system includes a control module for control module (404) for controlling the rates and/or amounts of catalyst to the FCC unit, via injection system (502) and fluid handler (406) for injecting the catalyst into the FCC unit. Pressure vessel (42) is coupled to the plurality of storage vessels and include a low pressure vessel (44) and second low pressure storage vessel (51) the number of low pressure storage vessels may be coupled to a single pressure vessel (420) for injection of the catalyst at a higher pressure. The storage vessels can be configured to deliver the same or different catalyst. The storage vessels are coupled to a manifold (530), which can direct the plurality of catalyst to a common delivery line for delivering or alternatively can be independently coupled to the pressure vessel, and each storage vessel is coupled to an independent metering device. The catalyst from the storage vessels can alternatively be blended prior to injecting into the FCC unit. It is maintained that to include or incorporate the separator and dispensing system Haugen in the FCC unit and dispensing and pressure storing catalyst storing and injection system of Evans would have been obvious to one having ordinary skill in the art, and the art teaches different systems for dispensing particulate material and to use a known dispensing system such as taught by Haugen in the catalyst injection system Evans

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would have been an obvious substitute to one having ordinary skill in the art at the time the invention was made.

10. Claims 4, 5, 11-14, 19, 20, 22 and 26 are objected as being dependent upon a rejected base claim but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to N. Bhat whose telephone number is 571-272-1397. The examiner can normally be reached on Monday-Friday, 9:30AM-6:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



N. Bhat
Primary Examiner
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